PR-08773-02

TASC ASTT TECHNICAL AND MANAGEMENT MONTHLY PROGRESS REPORT

Progress Report for the Period:

1 October – 31 October 1997

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Information Systems Office
(Advanced Simulation Technology Thrust)

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1. INTRODUCTION

This report provides a summary of the progress made during the report period under TASC's three ASTT (Advanced Simulation Technology Thrust) projects:

- MRA (Multiresolution Analysis), CLIN 0001/0002, Whitney
- JETS (JSIMS Environmental Tailoring), CLIN 0003/0004, Ouzts
- FROST (Framework of Reusable Objects), CLIN 0005/0006, Stanzione.

This report contains both Technical (Section 2) and Management / Financial (Section 3) status information, reported individually for each of the three projects.

2. TECHNICAL SUMMARY

2.1 MRA - MULTIRESOLUTION ANALYSIS (CLIN 0001/0002)

2.1.1 Technical Accomplishments

During October, the MRA staff completed work on the *Modeling Domain Analysis* task, the first activity in the MRA Conceptual Model described at the September 1997 ASTT/SNE Interim Project Review (IPR). We then began developing example scenarios needed for investigating candidate Measures of Consistency (MOCs) for some of the specific model interaction categories defined during the previous analysis task. This is the first step in the second MRA activity, *Consistency Measures and Algorithms.*

2.1.2 Results Obtained Related to Previously Identified Problem Areas

None.

2.1.3 Technical or Schedule Problem Areas

None.

2.1.4 Activities Planned for the Next Reporting Period

During the next month, we will complete development of at least two of the scenarios to be used for MOC investigations and begin implementations suitable for initial MOC experiments that will lead to reportable results at the January 1998 IPR. Also, we will be investigating alternative ASTT/SNE testbed models regarding their suitability for our later subsystem- and system-level MOC experiments. We will provide our testbed recommendations based on that investigation to ASTT/MRM participants at Lockheed-Martin.

2.2 JETS - JSIMS ENVIRONMENTAL TAILORING SERVICES (CLIN 0003/0004)

2.2.1 Technical Accomplishments

The Staff continued to work on two basic efforts: (1) identifying requirements for tailoring to support training needs in support of completing the requirements documents, and (2) acquiring and configuring a numerical weather prediction (NWP) model for initial testing and evaluation. The Environmental Tailoring Requirements Report is scheduled for completion by February 1998.

The team is also preparing a revamped Statement of Work in light of the reduced funding announced for FY98 (reduced from $451K to $291K). The primary reduction in effort will involve engineering aspects of JETS while attempting to retain as much scientific content as possible. In addition, JETS will likely shift its focus to the atmospheric domain only (eliminating any coupling to the ocean).

2.2.2 Results Obtained Related to Previously Identified Problem Areas

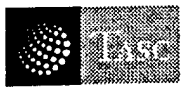
None.

2.2.3 Technical or Schedule Problem Areas

None.

2.2.4 Activities Planned for the Next Reporting Period

The JETS team will continue work on the Environmental Tailoring Requirements Report and acquire the necessary numerical models (atmosphere only) for planned analysis and algorithm



development. The team will also complete and submit a revised Statement of Work consistent with adjusted FY 98 funding.

2.3 FROST - FRAMEWORK OF REUSABLE OBJECTS (CLIN 0005/0006)

2.3.1 Technical Accomplishments

Framework Design

Alan Evans surveyed commercial spatial data management products, and performed research on data distribution methodology.

2.3.2 Results Obtained Related to Previously Identified Problem Areas

None.

2.3.3 Technical or Schedule Problem Areas

None.

2.3.4 Activities Planned for the Next Reporting Period

We will focus on providing documentation in the form of a white paper which describes why the distributed SNE problem is hard, how the proposed JSIMS architecture supports or does not support the SNE problem, and recommendations for further experiments that the FROST program can undertake to help solve the problems.

3. MANAGEMENT AND FINANCIAL SUMMARY

3.1 MRA (CLIN 0001/0002)

3.1.1 Cost Element Problem Areas

We have used up the GFY 97 funding and will be going on risk until the GFY 98 funds are in.

3.1.2 Program Financial Status

Work Breakdown Structure or Task Element	Cumulative to Date ($)* Planned Expend	Actual Expend	% Compl	At Completion ($)* BAC	LRE	Remarks
CLIN 0005/0006-FY97	$190,000	$193,771	83%	$232,450	$232,450	

• Excludes fee and cost of money

Based on currently authorized work:

(1)	Is current funding sufficient for the current FY	No
(2)	What is the next Fiscal Year's funding requirement at anticipated levels	$841,000
(3)	Have you included in the report narrative any explanation of the above data and are they cross referenced ?	No.

3.1.3 Travel and Meetings

Date	Location	Subject
10/23/97	Norfolk, VA	STOW Technology Review (JTASC, Dave Neck, WISSARD)

3.1.4 Any Significant Changes to the Contractor Organization or Method of Operation

None.

3.1.5 Summary of Engineering Change Proposal (ECP) Status

None.

3.2 JETS (CLIN 0003/0004)

3.2.1 Cost Element Problem Areas

We will use all current funds in November and will be going at risk in December (until FY98 funds are available).

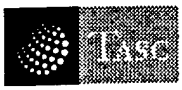
3.2.2 Program Financial Status

Work Breakdown Structure or Task Element	Cumulative to Date ($)* Planned Expend	Actual Expend	% Compl	At Completion ($)* BAC	LRE	Remarks
CLIN 0003/0004-FY97	107,668	105,588	88%	120,393	120,393	

• Excludes fee and cost of money

Based on currently authorized work:

(1)	Is current funding sufficient for the current FY	Yes
(2)	What is the next Fiscal Year's funding requirement at anticipated levels	$291,000*
(3)	Have you included in the report narrative any explanation of the above data and are they cross referenced ?	No



* Reduced from $451,000 by government

3.2.3 Travel and Meetings

Date	Location	Subject
23 Oct	Norfolk VA	STOW familiarization (JTASC, Dam Neck, WISSARD)

3.2.4 Any Significant Changes to the Contractor Organization or Method of Operation

None.

3.2.5 Summary of Engineering Change Proposal (ECP) Status

None.

3.3 FROST (CLIN 0005/0006)

3.3.1 Cost Element Problem Areas

None.

3.3.2 Program Financial Status

Work Breakdown Structure or Task Element	Cumulative to Date ($)*			At Completion ($)*		
	Planned Expend	Actual Expend	% Compl	BAC	LRE	Remarks
CLIN 0005/0006-FY97	157,407	129,616	11.4%	1,128,752	1,128,752	

• Excludes fee and cost of money

Based on currently authorized work:

(1)	Is current funding sufficient for the current FY	No
(2)	What is the next Fiscal Year's funding requirement at anticipated levels	$545,000
(3)	Have you included in the report narrative any explanation of the above data and are they cross referenced ?	Yes see 3.3.1.

3.3.3 Travel and Meetings

Date	Location	Subject

None.

3.3.4 Any Significant Changes to the Contractor Organization or Method of Operation

None.

3.3.5 Summary of Engineering Change Proposal (ECP) Status

None.